

AMENDMENT AND RESPONSE AND SUMMARY OF PERSONAL INTERVIEW WITH THE  
EXAMINER

Ser No. 10/666,573

February 1, 2005

Amendment

In the Specification:

At page 5, please amend the paragraph beginning at line 1, as follows:

--Possible ingredients of the coating composition of the invention are as follows:

- (a) A preferred phosphorous containing material which decomposes on contacting fire is ammonium polyphosphate obtainable as ~~Exolit~~ EXOLIT<sup>TM</sup> AP462 and AP422 from Clariant.
- (b) A hydroxylated thermosetting resin is a preferred binder component. The preferred thermosetting resins are epoxy resins and a suitable epoxy resin is a ~~diglycidyl~~ diglycidyl ether of bisphenol A (Molecular Weight approximately 1800) known as 663 UE obtainable from the Dow Chemical Company. The thermosetting resin also serves to control the stiffness of the coating.
- (c) A suitable curing agent (epoxy hardener) for the thermosetting epoxy resin is a phenolic resin DEH 82 which again is obtainable from the Dow Chemical Company.
- (d) Preferred thermoplastic binders are aldehyde and ketone resins. A suitable ~~aldehydeketone~~ resin is LAROPAL<sup>TM</sup> ~~Laropal~~ A81 and a further suitable aldehyde resin is LAROPAL<sup>TM</sup> ~~Laropal~~ A101 both obtainable from BASF. A81 ~~ketone resin~~ and A101 aldehyde ~~resinsresin~~ have a very low melt viscosity which can assist the extruder processing of the coating ingredients. The A81 resin and/or A101 gives plasticity to the binder system and this increased plasticity makes for easier foaming of the carbonaceous material when formed.
- (e) The optional melt viscosity modifier is an extrusion aid, e.g. hydrogenated castor oil obtainable as ~~Thixcin~~ <sup>TM</sup> THIXCIN<sup>TM</sup> from Rheox. The hydrogenated castor oil reduces the viscosity of the binder system during the extrusion process and during the coalescence phase of the curing cycle.
- (f) A colouring agent may be included in the coating composition to impart colour and opacity to the paint. The white pigment titanium dioxide can be used and since titanium dioxide is a high temperature resistant mineral (manufactured by

AMENDMENT AND RESPONSE AND SUMMARY OF PERSONAL INTERVIEW WITH THE EXAMINER

Ser No. 10/666,573

February 1, 2005

calcination at approximately 1000°C) it also assists in maintaining the structure of the char.

(g) Other materials which can be included in the coating composition of the invention are:

- (i) china clay (e.g. bentonite) as a stabilising agent;
- (ii) melamine phosphate as a stabilising agent, additional blowing agent and additional source of phosphorous material;
- (iii) vitrifiers, e.g. zinc borate;
- (iv) metal salts to impart various properties; and
- (v) melamine to give enhanced blowing effect.--

Please amend the Table on page 7, line 7 of the instant specification, as follows:

Ex	Epoxy Resin	Phenolic Curing Agent	Aldehyde Ketone Resin	THIXCIN™	Ammonium Polyphosphate	TiO <sub>2</sub>
				Thixcin		
1	18.0	6.0	10.0	3.5	55.0	7.5
2	18.0	6.0	10.0	3.5	57.5	5.0
3	15.0	5.0	14.0	3.5	57.5	5.0
4	18.0	6.0	6.5	7.0	57.5	5.0
5	16.5	5.5	8.5	7.0	57.5	5.0
6	22.5	7.5	15	-	50.0	5.0

AMENDMENT AND RESPONSE AND SUMMARY OF PERSONAL INTERVIEW WITH THE  
EXAMINER

Ser No. 10/666,573

February 1, 2005

Please amend the paragraph at page 7, lines 7-8 of the instant  
specification, as follows:

--The ~~aldehyde~~ketone resin of the above Examples can be replaced with a  
ketone~~an aldehyde~~ resin to give similar effects.--